2. (As filed) The method of claim 1, wherein angiogenesis activity is decreased.

3. (As filed) The method of claim 1, wherein angiogenesis activity is increased.

4. (As filed) The method of claim 2, wherein the response is a decrease in normal blood vessel formation.

5. (As filed) The method of claim 3, wherein the response is an increase in normal blood vessel formation.

6. (As filed) The method of claim 2, wherein the response is loss of existing blood vessels.

7. (As filed) The method of claim 1, wherein the teleost is an embryo, larva, or adult.

8. (As filed) The method of claim 1, wherein the teleost is a zebrafish, medaka, Giant rerio, or puffer fish.

9. (As filed) The method of claim 8, wherein the teleost is a zebrafish embryo.

10. (As filed) The method of claim 1, wherein the teleost is a wildtype strain.

11. (As filed) The method of claim 1, wherein the teleost contains a mutation in a selected gene.

12. (As filed) The method of claim 1, wherein the teleost is transgenic.

13. (As filed) The method of claim 1, wherein the agent is administered to the teleost by dissolving the agent in media containing the teleost.

14. (As filed) The method of claim 1, wherein the agent is administered to the teleost by injecting the agent into the teleost.

15. (As filed) The method of claim 1, wherein the agent is administered to the teleost in conjunction with a carrier.

16. (As filed) The method of claim 15, wherein the carrier is a solvent, lipid, or peptide.

17. (As filed) The method of claim 1, wherein the agent is a compound and a library of compounds is screened for angiogenesis activity.

18. (As filed) The method of claim 1, wherein the agent is a nucleic acid, peptide, protein, glycoprotein, carbohydrate, lipid, or glycolipid.

19. (As filed) The method of claim 18, wherein the nucleic acid is DNA or RNA.

20. (As filed) The method of claim 5, wherein blood vessels are visualized by light microscopy after alkaline phosphatase staining of the teleost.

21. (Amended) A method of screening an agent for an effect on cell death activity, said method comprising contacting a living teleost post 12-hours of development with a dye with affinity for dead cells, and thereafter administering the agent to be screened to [a] the living teleost and detecting [a response] the dye in at least one specific tissue or organ in the living teleost indicating an effect on cell death activity in at least one specific tissue or organ of the living teleost.

43. (Amended) A method of screening an agent for toxic activity in vivo comprising administering the agent to a teleost in vivo and detecting a change in level of an enzyme or mRNA in at least one tissue or organ of the teleost responsive to the agent [response in the teleost] indicating toxic activity in the at least one tissue or organ of the teleost.

Please add the following new claims:

--54. (New) The method of claim 21, wherein the response is an increase in cell death activity.

55. (New) The method of claim 21, wherein the response is a decrease in cell death activity.

56. (New) The method of claim 21, wherein the response is an increase in apoptotic activity or necrotic activity.

57. (New) The method of claim 21, wherein the response is a decrease in apoptotic activity or necrotic activity.

58. (New) The method of claim 56, wherein the increase in apoptotic activity comprises an increase in cell death in a tissue or organ of the teleost.

59. (New) The method of claim 57, wherein the decrease in apoptotic activity comprises a decrease in cell death in a tissue or organ of the teleost.

60. (New) The method of claim 54, wherein the method further comprises detecting a response in cell death activity in the teleost after a predetermined period of time, said time being sufficient for detectable differences in cell death activity to occur in the presence of the agent.

61. (New) The method of claim 56, wherein the increase in apoptotic activity is detected by light microscopy or fluorescence microscopy.

62. (New) The method of claim 21, wherein the agent is administered to the teleost by dissolving the agent in media containing the teleost.

63. (New) The method of claim 21, wherein a fluorescent dye which labels dead or dying cells is administered to the teleost prior to administration of the agent to the teleost.

64. (New) The method of claim 63, wherein the fluorescent dye is administered to the teleost by dissolving the fluorescent dye in media containing the teleost.

65. (New) The method of claim 63, wherein the fluorescent dye is administered to the teleost by injecting the fluorescent dye into the teleost.

66. (New) The method of claim 63, further comprising administering the agent to the teleost by dissolving the agent in the media containing the teleost or injecting the agent into the teleost after administration of the fluorescent dye to the teleost.

67. (New) The method of claim 63, wherein a fluorescent dye is a monomeric cyanine dye.

68. (New) The method of claim 67, wherein the fluorescent dye is benzothiazolium-4-quinolium dye.

69. (New) The method of claim 21, wherein the teleost is a zebrafish.

70. (New) The method of claim 54, wherein the increase in cell death activity is detected in more than one tissue or organ of the teleost simultaneously.

71. (New) The method of claim 70, wherein the increase in cell death activity is detected in more than one tissue or organ of the teleost simultaneously over time at predetermined intervals.

72. (New) The method of claim 60, wherein the method further comprises detecting the increase in cell death activity over time at predetermined intervals.

73. (New) The method of claim 56, wherein the increase in apoptotic activity or necrotic activity is detected in at least one organ or tissue or combination thereof.

74. (New) The method of claim 21, wherein the agent is a compound and a library of compounds is screened for an effect on cell death activity.

75. (New) The method of claim 43, wherein the response in the teleost indicating toxic activity is detected over time.

76. (New) The method of claim 43, wherein the response in the teleost indicating toxic activity is detected in at least two tissues, at least two organs, or at least one tissue and one organ simultaneously.

77. (New) The method of claim 76, wherein the response in the teleost indicating toxic activity is over time at predetermined intervals.

78. (New) The method of claim 43, further comprising administering the agent to at least two teleosts and detecting a response indicating toxic activity in each of said at least two teleosts simultaneously.

79. (New) The method of claim 78, wherein each of said at least two teleosts is contained in a well of a multi-well plate.

80. (New) The method of claim 1, further comprising screening the agent for toxic activity by detecting a response in the teleost indicating toxic activity.

81. (New) The method of claim 1, further comprising screening the agent for an ability to enhance or inhibit cell death activity by detecting a response in the teleost indicating an enhancement or inhibition of cell death activity.

82. (New) The method of claim 21, further comprising screening the agent for toxic activity by detecting a response in the teleost indicating toxic activity.

83. (New) The method of claim 1, wherein the teleost is bleached after staining with alkaline phosphatase.

84. (New) The method of claim 21, wherein the method is conducted in a teleost *in vivo*.

85. (New) The method of claim 1, wherein the teleost is contained in a microtiter well.

86. (New) The method of claim 85, wherein the response is detected using a microplate reader.

87. (New) The method of claim 21, wherein the teleost is contained in a microtiter well.

88. (New) The method of claim 87, wherein the dye in at least one specific tissue or organ is detected using a microplate reader.

89. (New) The method of claim 43, wherein the teleost is contained in a microtiter well.